

LMT/pdd/(dc)

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CLAIMS AS AMENDED 08/18/03

What is claimed is:

Claims 1-109 canceled.

110. (Previously presented) A humanized immunoglobulin having binding specificity for CCR2, said humanized immunoglobulin comprising a light chain variable region comprising the amino acid sequence of SEQ ID NO:107 and a heavy chain variable region from an antibody having binding specificity for CCR2.
111. (Previously presented) The humanized immunoglobulin according to Claim 110, wherein the heavy chain variable region is from an antibody of nonhuman origin.
112. (Previously presented) The humanized immunoglobulin according to Claim 111, wherein the antibody of nonhuman origin is murine monoclonal antibody 1D9.
113. (Previously presented) The humanized immunoglobulin according to Claim 110, wherein said humanized immunoglobulin further comprises a constant region derived from a human constant region.
114. (Previously presented) The humanized immunoglobulin according to Claim 113, wherein said human constant region is of the gamma type.
115. (Previously presented) The humanized immunoglobulin according to Claim 110, wherein said humanized immunoglobulin can compete with murine monoclonal antibody 1D9 for binding to CCR2.
116. (Previously presented) The humanized immunoglobulin according to Claim 110,

*Current claims for U.S. Patent Application No. 09/840,459*

wherein said humanized immunoglobulin has the epitopic specificity of murine monoclonal antibody 1D9.

117. (Previously presented) The humanized immunoglobulin according to Claim 110, wherein said humanized immunoglobulin inhibits binding of a ligand to CCR2.
118. (Previously presented) The humanized immunoglobulin thereof according to Claim 117, wherein the ligand is a chemokine.
119. (Previously presented) The humanized immunoglobulin according to Claim 118, wherein the chemokine is selected from the group consisting of MCP-1, MCP-2, MCP-3, MCP-4 and combinations of the foregoing.
120. (Previously presented) A composition comprising a humanized immunoglobulin having binding specificity for CCR2, said humanized immunoglobulin comprising a light chain variable region comprising the amino acid sequence of SEQ ID NO:107 and a heavy chain variable region from an antibody having binding specificity for CCR2, and a physiologically acceptable vehicle.
121. (Previously presented) A pharmaceutical composition comprising a humanized immunoglobulin having binding specificity for CCR2, said humanized immunoglobulin comprising a light chain variable region comprising the amino acid sequence of SEQ ID NO:107 and a heavy chain variable region from an antibody having binding specificity for CCR2, and a physiologically acceptable vehicle.
122. (Previously presented) A humanized immunoglobulin having binding specificity for CCR2, said humanized immunoglobulin comprising a light chain variable region comprising the amino acid sequence of SEQ ID NO:107 and a heavy chain from an antibody having binding specificity for CCR2.

123. (Previously presented) The humanized immunoglobulin according to Claim 122, wherein said humanized immunoglobulin further comprises a constant region derived from a human constant region.
124. (Previously presented) The humanized immunoglobulin according to Claim 123, wherein said human constant region is of the gamma type.
125. (Previously presented) The humanized immunoglobulin according to Claim 122, wherein said humanized immunoglobulin can compete with murine monoclonal antibody 1D9 for binding to CCR2.
126. (Previously presented) The humanized immunoglobulin according to Claim 122, wherein said humanized immunoglobulin has the epitopic specificity of murine monoclonal antibody 1D9.
127. (Previously presented) The humanized immunoglobulin according to Claim 122, wherein said humanized immunoglobulin inhibits binding of a ligand to CCR2.
128. (Previously presented) The humanized immunoglobulin according to Claim 127, wherein the ligand is a chemokine.
129. (Previously presented) The humanized immunoglobulin according to Claim 128, wherein the chemokine is selected from the group consisting of MCP-1, MCP-2, MCP-3, MCP-4 and combinations of the foregoing.
130. (Previously presented) A composition comprising a humanized immunoglobulin having binding specificity for CCR2, said humanized immunoglobulin comprising a light chain variable region comprising the amino acid sequence of SEQ ID NO:107 and a heavy chain from an antibody having binding specificity for CCR2, and a physiologically acceptable vehicle.
131. (Previously presented) A pharmaceutical composition comprising a humanized

immunoglobulin having binding specificity for CCR2, said humanized immunoglobulin comprising a light chain variable region comprising the amino acid sequence of SEQ ID NO:107 and a heavy chain from an antibody having binding specificity for CCR2, and a physiologically acceptable vehicle.

132. (Previously presented) A humanized immunoglobulin having binding specificity for CCR2, said humanized immunoglobulin comprising a light chain and a heavy chain, said light chain comprising a variable region comprising the amino acid sequence of SEQ ID NO:107 and said heavy chain comprising three complementarity determining regions derived from the heavy chain of an antibody having binding specificity for CCR2.
133. (Previously presented) The humanized immunoglobulin according to Claim 132, wherein said heavy chain comprises three complementarity determining regions derived from the heavy chain of an antibody of nonhuman origin having binding specificity for CCR2.
134. (Previously presented) The humanized immunoglobulin according to Claim 133, wherein said heavy chain comprises three complementarity determining regions derived from the heavy chain of murine monoclonal antibody 1D9.
135. (Previously presented) The humanized immunoglobulin according to Claim 134, wherein the complementarity determining regions are amino acids 31-35 of SEQ ID NO: 10, amino acids 50-68 of SEQ ID NO: 10, and amino acids 101-106 of SEQ ID NO: 10.
136. (Previously presented) The humanized immunoglobulin according to Claim 132, wherein said heavy chain further comprises a framework region derived from a heavy chain of human origin.
137. (Previously presented) The humanized immunoglobulin according to Claim 136, wherein the heavy chain of human origin is from human antibody 4B4'CL.

138. (Previously presented) The humanized immunoglobulin according to Claim 132, wherein said humanized immunoglobulin further comprises a constant region derived from a human constant region.
139. (Previously presented) The humanized immunoglobulin according to Claim 138, wherein said human constant region is of the gamma type.
140. (Previously presented) The humanized immunoglobulin according to Claim 132, wherein said humanized immunoglobulin can compete with murine monoclonal antibody 1D9 for binding to CCR2.
141. (Previously presented) The humanized immunoglobulin according to Claim 132, wherein said humanized immunoglobulin has the epitopic specificity of murine monoclonal antibody 1D9.
142. (Previously presented) The humanized immunoglobulin according to Claim 132, wherein said humanized immunoglobulin inhibits binding of a ligand to CCR2.
143. (Previously presented) The humanized immunoglobulin according to Claim 142, wherein the ligand is a chemokine.
144. (Previously presented) The humanized immunoglobulin according to Claim 143, wherein the chemokine is selected from the group consisting of MCP-1, MCP-2, MCP-3, MCP-4 and combinations of the foregoing.
145. (Previously presented) A composition comprising a humanized immunoglobulin having binding specificity for CCR2, said humanized immunoglobulin comprising a light chain and a heavy chain, said light chain comprising a variable region comprising the amino acid sequence of SEQ ID NO:107 and said heavy chain comprising three complementarity determining regions derived from the heavy chain of an antibody having binding specificity for CCR2, and a physiologically

acceptable vehicle.

146. (Previously presented) A pharmaceutical composition comprising a humanized immunoglobulin having binding specificity for CCR2, said humanized immunoglobulin comprising a light chain and a heavy chain, said light chain comprising a variable region comprising the amino acid sequence of SEQ ID NO:107 and said heavy chain comprising three complementarity determining regions derived from the heavy chain of an antibody having binding specificity for CCR2, and a physiologically acceptable vehicle.
147. (Previously presented) A humanized immunoglobulin having binding specificity for CCR2, said humanized immunoglobulin comprising a heavy chain and a light chain, wherein said light chain comprises a variable region comprising the amino acid sequence of SEQ ID NO: 107, and wherein said heavy chain comprises three complementarity determining regions derived from the heavy chain of murine monoclonal antibody 1D9 and a framework region derived from the heavy chain of human antibody 4B4'CL.
148. (Previously presented) A pharmaceutical composition comprising a humanized immunoglobulin having binding specificity for CCR2, said humanized immunoglobulin comprising a heavy chain and a light chain, wherein said light chain comprises a variable region comprising the amino acid sequence of SEQ ID NO: 107, and wherein said heavy chain comprises three complementarity determining regions derived from the heavy chain of murine monoclonal antibody 1D9 and a framework region derived from the heavy chain of human antibody 4B4'CL, and a physiologically acceptable vehicle.
149. (Previously presented) A variable region comprising the amino acid sequence of SEQ ID NO: 107.
150. (Previously presented) A humanized immunoglobulin light chain comprising a variable region comprising the amino acid sequence of SEQ ID NO: 107.

151. (Previously presented) An antigen-binding fragment of a humanized immunoglobulin having binding specificity for CCR2, said humanized immunoglobulin comprising a light chain variable region comprising the amino acid sequence of SEQ ID NO:107 and a heavy chain variable region from an antibody having binding specificity for CCR2, wherein said antigen-binding fragment has binding specificity for CCR2.
152. (Previously presented) The antigen-binding fragment according to Claim 151, wherein the heavy chain variable region is from an antibody of nonhuman origin.
153. (Previously presented) The antigen-binding fragment according to Claim 152, wherein the antibody of nonhuman origin is murine monoclonal antibody 1D9.
154. (Previously presented) The antigen-binding fragment according to Claim 151, wherein said antigen-binding fragment can compete with murine monoclonal antibody 1D9 for binding to CCR2.
155. (Previously presented) The antigen-binding fragment according to Claim 151, wherein said antigen-binding fragment has the epitopic specificity of murine monoclonal antibody 1D9.
156. (Previously presented) The antigen-binding fragment according to Claim 151, wherein said antigen-binding fragment inhibits binding of a ligand to CCR2.
157. (Previously presented) The antigen-binding fragment according to Claim 156, wherein the ligand is a chemokine.
158. (Previously presented) The antigen-binding fragment according to Claim 157, wherein the chemokine is selected from the group consisting of MCP-1, MCP-2, MCP-3, MCP-4 and combinations of the foregoing.
159. (Previously presented) A composition comprising an antigen-binding fragment of

a humanized immunoglobulin having binding specificity for CCR2 and a physiologically acceptable vehicle, wherein said humanized immunoglobulin comprises a light chain variable region comprising the amino acid sequence of SEQ ID NO:107 and a heavy chain variable region from an antibody having binding specificity for CCR2, and wherein said antigen-binding fragment has binding specificity for CCR2.

160. (Previously presented) A pharmaceutical composition comprising an antigen-binding fragment of a humanized immunoglobulin having binding specificity for CCR2 and a physiologically acceptable vehicle, wherein said humanized immunoglobulin comprises a light chain variable region comprising the amino acid sequence of SEQ ID NO:107 and a heavy chain variable region from an antibody having binding specificity for CCR2, and wherein said antigen-binding fragment has binding specificity for CCR2.
161. (Previously presented) An antigen-binding fragment of a humanized immunoglobulin having binding specificity for CCR2, said humanized immunoglobulin comprising a light chain variable region comprising the amino acid sequence of SEQ ID NO:107 and a heavy chain from an antibody having binding specificity for CCR2, wherein said antigen-binding fragment has binding specificity for CCR2.
162. (Previously presented) The antigen-binding fragment according to Claim 161, wherein said antigen-binding fragment can compete with murine monoclonal antibody 1D9 for binding to CCR2.
163. (Previously presented) The antigen-binding fragment according to Claim 161, wherein said antigen-binding fragment has the epitopic specificity of murine monoclonal antibody 1D9.
164. (Previously presented) The antigen-binding fragment according to Claim 161, wherein said antigen-binding fragment inhibits binding of a ligand to CCR2.



165. (Previously presented) The antigen-binding fragment according to Claim 164, wherein the ligand is a chemokine.
166. (Previously presented) The antigen-binding fragment according to Claim 165, wherein the chemokine is selected from the group consisting of MCP-1, MCP-2, MCP-3, MCP-4 and combinations of the foregoing.
167. (Previously presented) A composition comprising an antigen-binding fragment of a humanized immunoglobulin having binding specificity for CCR2 and a physiologically acceptable vehicle, wherein said humanized immunoglobulin comprises a light chain variable region comprising the amino acid sequence of SEQ ID NO:107 and a heavy chain from an antibody having binding specificity for CCR2, and wherein said antigen-binding fragment has binding specificity for CCR2.
168. (Previously presented) A pharmaceutical composition comprising an antigen-binding fragment of a humanized immunoglobulin having binding specificity for CCR2 and a physiologically acceptable vehicle, wherein said humanized immunoglobulin comprises a light chain variable region comprising the amino acid sequence of SEQ ID NO:107 and a heavy chain from an antibody having binding specificity for CCR2, and wherein said antigen-binding fragment has binding specificity for CCR2.
169. (Previously presented) An antigen-binding fragment of a humanized immunoglobulin having binding specificity for CCR2, said immunoglobulin comprising a light chain and a heavy chain, said light chain comprising a variable region comprising the amino acid sequence of SEQ ID NO:107 and said heavy chain comprising three complementarity determining regions derived from the heavy chain of an antibody having binding specificity for CCR2, wherein said antigen-binding fragment has binding specificity for CCR2.
170. (Previously presented) The antigen-binding fragment according to Claim 169,

wherein said heavy chain comprises three complementarity determining regions derived from the heavy chain of an antibody of nonhuman origin having binding specificity for CCR2.

171. (Previously presented) The antigen-binding fragment according to Claim 170, wherein said heavy chain comprises three complementarity determining regions derived from the heavy chain of murine monoclonal antibody 1D9.
172. (Previously presented) The antigen-binding fragment according to Claim 171, wherein the complementarity determining regions are amino acids 31-35 of SEQ ID NO: 10, amino acids 50-68 of SEQ ID NO: 10, and amino acids 101-106 of SEQ ID NO: 10.
173. (Previously presented) The antigen-binding fragment according to Claim 169, wherein said heavy chain further comprises a framework region derived from a heavy chain of human origin.
174. (Previously presented) The antigen-binding fragment according to Claim 173, wherein the heavy chain of human origin is from human antibody 4B4'CL.
175. (Previously presented) The antigen-binding fragment according to Claim 169, wherein said antigen-binding fragment can compete with murine monoclonal antibody 1D9 for binding to CCR2.
176. (Previously presented) The antigen-binding fragment according to Claim 169, wherein said antigen-binding fragment has the epitopic specificity of murine monoclonal antibody 1D9.
177. (Previously presented) The antigen-binding fragment according to Claim 169, wherein said antigen-binding fragment inhibits binding of a ligand to CCR2.
178. (Previously presented) The antigen-binding fragment according to Claim 177,

wherein the ligand is a chemokine.

179. (Previously presented) The antigen-binding fragment according to Claim 178, wherein the chemokine is selected from the group consisting of MCP-1, MCP-2, MCP-3, MCP-4 and combinations of the foregoing.
180. (Previously presented) A composition comprising an antigen-binding fragment of a humanized immunoglobulin having binding specificity for CCR2 and a physiologically acceptable vehicle, wherein said immunoglobulin comprises a light chain and a heavy chain, said light chain comprising a variable region comprising the amino acid sequence of SEQ ID NO:107 and said heavy chain comprising three complementarity determining regions derived from the heavy chain of an antibody having binding specificity for CCR2, and wherein said antigen-binding fragment has binding specificity for CCR2.
181. (Previously presented) A composition comprising an antigen-binding fragment of a humanized immunoglobulin having binding specificity for CCR2 and a physiologically acceptable vehicle, wherein said immunoglobulin comprises a light chain and a heavy chain, said light chain comprising a variable region comprising the amino acid sequence of SEQ ID NO:107 and said heavy chain comprising three complementarity determining regions derived from the heavy chain of an antibody having binding specificity for CCR2, and wherein said antigen-binding fragment has binding specificity for CCR2.
182. (Previously presented) An antigen-binding fragment of a humanized immunoglobulin having binding specificity for CCR2, said immunoglobulin comprising a heavy chain and a light chain, wherein said light chain comprises a variable region comprising the amino acid sequence of SEQ ID NO: 107, and wherein said heavy chain comprises three complementarity determining regions derived from the heavy chain of murine monoclonal antibody 1D9 and a framework region derived from the heavy chain of human antibody 4B4'CL, wherein said antigen-binding fragment has binding specificity for CCR2.

183. (Previously presented) A pharmaceutical composition comprising an antigen-binding fragment of a humanized immunoglobulin having binding specificity for CCR2 and a physiologically acceptable vehicle, wherein said immunoglobulin comprises a heavy chain and a light chain, wherein said light chain comprises a variable region comprising the amino acid sequence of SEQ ID NO: 107, and wherein said heavy chain comprises three complementarity determining regions derived from the heavy chain of murine monoclonal antibody 1D9 and a framework region derived from the heavy chain of human antibody 4B4'CL, and wherein said antigen-binding fragment has binding specificity for CCR2.
184. (Canceled)